

Title (en)

Ultra-short optical pulse source.

Title (de)

Quelle für sehr kurze optische Pulse.

Title (fr)

Source d'impulsions optiques ultracourtes.

Publication

EP 0431840 B1 19931027 (EN)

Application

EP 90312991 A 19901129

Priority

US 44651589 A 19891205

Abstract (en)

[origin: EP0431840A2] An ultra-short optical pulse source uses a gain-switched laser diode with a dispersive delay line to compress the optical pulse output from the laser diode, the gain-switched laser diode having particular spectral characteristics. The gain-switched laser diode may be tested by energizing it with a continuous wave signal at or near the lasing threshold level. The resulting spectrum is examined for the presence of satellite spectral intensity features. Those gain-switched laser diodes that exhibit a spectrum having all satellite spectral features below a predetermined level with respect to the intensity of a principal spectral component are selected for use in the ultra-short optical pulse source. <IMAGE>

IPC 1-7

H01S 3/00; H01S 3/103; G02F 1/015

IPC 8 full level

H01S 5/00 (2006.01); **H01S 5/062** (2006.01); **H01S 3/00** (2006.01)

CPC (source: EP US)

H01S 5/0014 (2013.01 - EP US); **H01S 5/06216** (2013.01 - EP US); **H01S 3/0057** (2013.01 - EP US); **H01S 5/0057** (2013.01 - EP US)

Cited by

DE19827139A1; DE19827139C2; EP0668640A1; US5548603A

Designated contracting state (EPC)

DE FR GB NL

DOCDB simple family (publication)

EP 0431840 A2 19910612; **EP 0431840 A3 19911204**; **EP 0431840 B1 19931027**; DE 69004224 D1 19931202; DE 69004224 T2 19940519; JP H03177090 A 19910801; US 5014015 A 19910507

DOCDB simple family (application)

EP 90312991 A 19901129; DE 69004224 T 19901129; JP 34117090 A 19901130; US 44651589 A 19891205